

REMARKS

The Examiner, in paragraph 1 of Office Action of November 16, 2005, indicates as follows:

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,982,420 to Ratz in view of US Patent 5,631,697 to Nishimura et al.

[claim 1]

Ratz teaches a surveillance system comprising a camera unit for transforming an image into an image signal and outputting said image signal.

Ratz further teaches a display unit having a screen and operative to transform into an image said image signal outputted by said camera unit to display said image on said screen (Note: camera system generates a composite video signal containing image signals and has a display device, Column 1, Lines 66-67, Column 2, Lines 1-3), camera unit being operative to automatically chase an object as a chasing target to have said display unit display said object as said chasing target and a display unit including marker displaying means for displaying a marker on said screen and chasing target determining means for determining said object spaced apart from said marker at a predetermined distance as said chasing target among said images displayed on said screen (Note: camera system including an automatic tracking device, a reference box for confining and locating the information defining the preselected portion as it is being viewed on the display, Column 2, Lines 4-14, Fig. 1).

Ratz teaches the use of a joystick operative to output position signals and signal controlling means for receiving signals outputted by joystick to control camera and joystick having ability to control two states and setting means for setting states (Column 12, Lines 32-43, Col 12 Lines 54-67).

Said camera unit is operative to automatically chase said object selected as said chasing target to ensure that said object selected as said chasing target is

displayed on said screen (Col 12, Lines 54-67, Abstract).

Ratz does not teach the photographing direction of said camera unit not being changed when moving the marker on said screen.

As shown in Figures 9 and 10, Nishimura teaches a similar automatic target tracking system as Ratz. Nishimura teaches the method of determining an object to track by using a marker (Col 10 Line 51-Col 11 Line 17, Fig. 9). Nishimura further teaches the combination of the electrical tracking method (Figs. 2(a)-2(b) and 9) with the mechanical target tracking method (pedestal 300, Fig. 12(a)) in order to provide a smoother and more accurate target tracker (Col 12 Lines (8-12). Nishimura further teaches the benefit of an electrical/mechanical target tracking system in order to maintain an accurate target tracking when a camera can only be mechanically moved one-dimensionally (Col 14 Line 48-Col 15 Line 5, Figs. 18(a)-18(c)). Nishimura further teaches the combination of the marker camera system of Fig. 9 with the mechanical tracking means (pedestal 300, Fig. 12(a)) (Col 14 Lines 23-29). In such a system the user moving the marker would move the camera when moving the marker up and down (when the camera is a one-dimensional camera) but would not move the camera when moving the marker left and right. It would have been obvious to one of ordinary skilled in the art at the same time of the invention to combine the electrical/mechanical target tracking means of Nishimura with the system of Ratz in order to provide a smoother and more accurate target tracking.

The present invention defined in currently amended claim 1 is patentably distinguishable over the cited documents "Ratz" and "Nishimura et al." by the following reasons.

The constituent features of the surveillance system defined in currently amended claim 1 are as follows:

- (a) a camera unit for transforming an image indicative of the objects into an image signal and outputting the image signal;
- (b) a display unit having a screen and operative to transform the image signal outputted by

the camera unit into an image to be displayed on the screen, the display unit including marker displaying means for displaying a marker on the screen, and chasing target determining means for selecting as a chasing target one object from among the objects displayed on the screen by determining whether or not the marker is positioned on the screen in predetermined relationship with the object to be selected as the chasing target; and

(c) a control unit for controlling the camera unit and the display unit, the control unit including a (c1) joystick operative to be inclined at its desired angular positions to output position signals respectively responsive to the desired angular positions, (c2) signal controlling means for receiving the position signals outputted by the joystick, the signal controlling means being operative to assume two controlling states consisting of a first controlling state to control the driving operation of the camera unit, and a second controlling state to control the movement of the marker on the screen in response to the position signals to ensure that the marker is positioned on the screen in predetermined relationship with the object to be selected as the chasing target, the photographing direction of the camera unit being not changed when the signal controlling means is in the second controlling state, and (c3) setting means for having the signal controlling means selectively assume the first and second controlling states, wherein

the camera unit including (a1) an image signal processing section for processing the image signal, and (a2) a moving object detecting section for detecting a moving object from the image to be displayed on the screen,

the image signal processing section is operative to allocate numerical markers to objects each detected as said moving object by the moving object detecting section, and to superimpose the numerical markers to the detected moving objects, and

the camera unit is operative to automatically chase the object selected as the chasing target to ensure that the object selected as the chasing target is displayed on the screen.

The effects of the surveillance system defined in currently amended claim 1 are as follows:

(1) The numerical markers can be allocated to objects each detected as the moving object by the moving object detecting section, and can be respectively superimposed to the detected moving objects.

(2) The operator can easily indicate which one of the objects is to be chased by the

camera or cameras if there is a plurality of objects on the screen.

From the elements (a1) and (a2) forming part of the surveillance system defined in currently amended claim 1, it will be understood that the surveillance system according to the present invention defined in currently amended claim 1 comprises a camera unit including an image signal processing section for processing the image signal, and a moving object detecting section for detecting a moving object from the image to be displayed on the screen, the image signal processing section being operative to allocate numerical markers to objects each detected as the moving object by the moving object detecting section, and to superimpose the numerical markers to the detected moving objects.

The cited document "Ratz" discloses an automatic tracking device in which the camera is known in the art and may be responsive to visible or infrared radiation, and produces an unmodulated composite video signal containing image information that varies in accordance with a light intensity of the imaged object intercepting the sensitive surface of the camera. However, the cited document "Ratz" fails to disclose a camera unit including an image signal processing section for processing the image signal, and a moving object detecting section for detecting a moving object from the image to be displayed on the screen, the image signal processing section being operative to allocate numerical markers to objects each detected as the moving object by the moving object detecting section, and to superimpose the numerical markers to the detected moving objects.

On the other hand, the cited document "Nishimura et al." discloses a vide camera in which the marker generator 31 generates a marker signal, and then the signal processor 4 superimposes the marker signal on a video signal, the position of the marker on the screen may be changeable or may be fixed at the center of the screen, the marker being displayed on a monitor screen, such as the screen of an electronic viewfinder when the push-button of the switch 30 is pushed once, and the marker being set as a target object and recognized by the controller 29 when the push-button of the switch 30 is pushed again. However, the cited document "Nishimura et al." fails to disclose a camera unit including an image signal processing section for processing the image signal, and a moving object detecting section for detecting a moving object from the image to be displayed on the screen, the image signal processing section being operative to allocate numerical markers to objects each detected as

the moving object by the moving object detecting section, and to superimpose the numerical markers to the detected moving objects.

The surveillance system defined in amended claim 1 is completely different in construction from the disclosure of the cited documents "Ratz" and "Nishimura et al."

Further, the surveillance system defined in currently amended claim 1 can obtain the advantages that the numerical markers can be allocated to objects each detected as the moving object by the moving object detecting section, and superimposed to the detected moving objects, and the operator can easily indicate which one of the objects is to be chased by the camera or cameras if there is a plurality of objects on the screen.

On the other hand, the automatic tracking device disclosed in the cited document "Ratz" cannot expect the advantages of the surveillance system defined in currently amended claim 1, resulting from the fact that the cited document "Ratz" fails to disclose a camera unit including an image signal processing section for processing the image signal, and a moving object detecting section for detecting a moving object from the image to be displayed on the screen, the image signal processing section being operative to allocate numerical markers to objects each detected as the moving object by the moving object detecting section, and to superimpose the numerical markers to the detected moving objects.

Similarly, the video camera disclosed in the cited document "Nishimura et al." cannot expect the advantages of the surveillance system defined in currently amended claim 1, resulting from the fact that the cited document "Nishimura et al." fail to disclose a camera unit including an image signal processing section for processing the image signal, and a moving object detecting section for detecting a moving object from the image to be displayed on the screen, the image signal processing section being operative to allocate numerical markers to objects each detected as the moving object by the moving object detecting section, and to superimpose the numerical markers to the detected moving objects.

It will, therefore, be appreciated from the foregoing description that the surveillance system defined in amended claim 1 is patentably distinguishable over the disclosure of the cited documents "Ratz" and "Nishimura et al."

Claims 2, 5 to 7 and 10 are dependent on the currently amended claim 1 which is believed to be patentably distinguishable over the disclosure of each of the cited documents as will be understood from the previously mentioned reasons. Claim 4 is dependent on the

Appl. No. 09/886,891
Amdt. Dated February 10, 2006
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amended claim 2 which is believed to be patentably distinguishable over the disclosure of each of the cited documents as will be understood from the previously mentioned reasons. Claims 8 and 9 are dependent on the claim 5 which is believed to be patentably distinguishable over the disclosure of each of the cited documents as will be understood from the previously mentioned reasons. It is, therefore, believed that claims 2 and 4 to 10 are patentably distinguishable over the disclosure of the cited document based on the same reasons as above.

In view of the foregoing description, it is respectfully submitted that the present application is thus in condition for allowance.

If any fees are required by this communication, please charge such fees to our Deposit Account No. 16-0820, Order No. 33718.

Respectfully submitted,

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Date: February 10, 2006